

Nat'l Bee-Keepers' Convention at Los Angeles, Aug. 18-20

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43d Year.

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WEEKLY



THOS. WM. COWAN,
Editor of the British Bee Journal, London, England.
(See page 516.)

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AMERICAN ESTABLISH'D IN 1861 BEE JOURNAL



43d YEAR.

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Editorial Comments

Ordering Supplies in Time.—It is not wise to wait to see what the harvest will be before ordering supplies needed to secure it. Some bee-keepers, who have followed that plan, have been badly caught this year. Their stock of sections has run out, and more could not at once be obtained, because they were not yet made, and the manufacturers were away behind orders.

The fall of the year is none too early to order for the next year. Count your fall number as wintering without loss, then figure the number of sections they will require should the season be the best you have ever known, and order accordingly.

"But," you say, "there will in that way generally be a lot of dead capital, for nine times out of ten so many sections will not be needed."

The loss from dead capital will be less in ten years than the annoyance and loss in one year of heavy flow, if you run out of sections and can not get any. It is better to make up your sections and get them all ready in the supers in winter-time or early spring, while not crowded with other bee-work. If you don't need them they will be all right for the following year. Even if not used for three or four years, they will take no hurt.

Keeping Empty Combs.—Instead of trying to keep combs in a moth-proof closet, G. C. Greiner, as he reports in Gleanings in Bee-Culture, keeps them in a light room, hung not too close together in racks. The light, together with the airy space between the combs, is sufficient to keep the moth away generally, and if perchance an occasional attack be made, a simple glance enables one to see what is going on.

Old vs. Fresh Foundation.—The question comes up every year from this or that beginner, "Can I use next year foundation left over from this year?" Some say: "Yes, it is just as good as new when a year old, or five years old." Others say: "No, I would melt up all left over from the previous year, and would much prefer to have it right fresh from the mill."

It is not likely that locality plays any important part in the affair, what is applicable in one place being equally applicable elsewhere, and such widely differing views are to be accounted for by the fact that too limited a view is taken in either case. The experienced bee-keeper, instead of answering the question by either monosyllable, yes or no, will answer, "That depends."

Beeswax in the form of foundation is but little affected by age when properly kept, although it may be much affected otherwise. Let it remain in the packing-box in which it is received, and years of keeping will have little effect upon it. Even if put into sections and piled up in supers in the house, it will be readily accepted by the bees when several years old. But keeping it on the hives when not being used by the bees is another matter. In the early part of the season it may be all right, and it may do no harm to put on sections a few days before they are needed, but sometimes a super of empty sections is put on about the time the flow ceases, and the bees will immediately begin to put a very thin—not so very thin if left long enough—a very thin

coating of bee-glue over the entire surface of the foundation. A section thus treated, when given to the bees the next year, will be accepted very slowly, often not at all. Put such a well-glazed section in the middle of a super among sections filled with fresh foundation, and when all the other sections in the super are filled and finished, that particular section will be as empty as when given.

The moral of all this is, that you need not be afraid to keep foundation over from one year to another, either in or out of the sections, but you should not leave it in the care of the bees after the honey-flow has ceased, no matter whether it be partly filled with honey, merely drawn out, or yet untouched. Sometimes there is quite an interval between the early and the late flow. Better take off the sections at the close of the first, to be returned when needed.

Sweet Clover and Farmers.—A German friend sends a clipping from the Green Co. (Wis.) Herald, which quotes the advice to farmers of John Bauscher, Jr., with regard to sweet clover. That advice is to take vigorous measures for the destruction of sweet clover, for once introduced into fields it can be gotten out only with the greatest difficulty, if at all, as it spreads with extraordinary rapidity, completely overcoming other forage and grain plants.

It does seem a little strange that men, otherwise intelligent, should show such ignorance with regard to sweet clover. Mr. Bauscher need only to use his eyes to know that sweet clover spreads very slowly, if indeed it spreads at all, from the roadside into a field. Its sole means of propagation is by seed, and it dies root and branch the second winter, so if cut before going to seed it has no chance for continuance.

In a field of cultivated crops sweet clover is no more troublesome than red clover, and in certain places not so bad as white clover. Indeed, in some cases white clover is a troublesome weed, as in a strawberry bed, but no one on that account is likely to condemn white clover as deserving of annihilation.

In spite of the unreasonable prejudice against it, sweet clover is gaining ground as a forage-plant of value. More than one farmer, who formerly railed against it, is now putting it in his barn as good winter feed. But stock must learn to like it.

Too Much Symmetry in an Apiary Undesirable.—Editor Root says in Gleanings in Bee-Culture:

It is a mistake to have a queen-rearing yard laid out in straight rows, and have all the grass and weeds cut out. Hives should be located in groups of one, two, three, four, and five. Do not have any two groups of the same size and appearance near each other. If there is a group of five hives here, make the next group of two; another group of four. Make each group different from the adjoining one, and, if possible, put near some distinguishing object like a tree or a bush. One group can have a large tree, and another a small one. If tall weeds grow up near the entrance, all the better. While they obstruct the flight slightly, they help young queens in identifying their entrances.

And, by the way, we made a mistake in Cuba in cutting away all the grass in front of the hives, and in putting them in straight rows. The native Cuban bee-keeper lets the grass grow. His hives are laid out very irregularly, with the result there is much less robbing than there would be if they were all laid out with perfect regularity in rows, and entrances pointing in one direction. In an apiary of the last-mentioned kind, it is no wonder the bees become confused, and that robbers get a good start before the inmates of the hive realize what is going on.

There is another point: It takes a great deal of time to keep the grass and weeds down. If I were running for honey and money only I would keep the entrances, the paths, and roadways clear, and that is all.

You will ask why you would not find that condition of things at

our home yard in Medina. Simply because it would offend some of our visitor friends. They expect to see something like a park. But take a trip up to the Harrington yard, and you will find things as they are in Cuba.

What is true in this regard respecting a queen-rearing yard is just as true with regard to the ordinary apiary, although the consequences may not be so severe. If a worker-bee carries its load into the wrong hive, there may be no loss; its load of honey will be worth as much to the bee-keeper in one hive as in another. But if a young queen enters the wrong hive, it is quite another story. But even in an ordinary apiary there are young queens to take their wedding-trips, and entrance into wrong hives is disastrous.

One does not like, however, to have the hives in one's apiary arranged in such order as a cyclone might be expected to leave them. There is little danger from the straightest rows, provided there are objects of the right kind to help the little workers to locate their hives. A tree will help to locate a number of hives on all sides. Even a post will be a help.

Granules of Honey in Bait-Sections.—It might seem that a very little honey left in a bait-section, even if granulated, would be so thoroughly lost in the much larger quantity of fresh honey added, that no harm could result. But it is claimed that each little granule acts somewhat as a seed, rapidly increasing its kind, the smallest granule thus soon affecting the whole. Upon this point H. S. Shorthouse makes the following interesting remarks in the British Bee Journal:

The occasional crystallization of one jar of honey which granulates, while the others remain bright and liquid, is accounted for by the fact that the bottle either contains a small portion of grit, or is slightly rough or irregular in some particular part of the inside, which lends a starting point of crystallization to the sugars which are contained in the honey in what we will term a state of super-saturation.

An experiment (on crystallization), using sulphate of soda for the purpose, most beautifully illustrates this theory. If we take a quantity of sulphate of soda, dissolve it in a minimum quantity of hot water, and whilst warm tie over the neck of the vessel in which it is contained a parchment paper, and allow it to cool, we can at any moment cause the solution to crystallize by the puncturing of the paper with a needle, or by keeping the bottle air-tight we can retain it in solution form.

Again, we can make solutions of chemicals and can manipulate them without any signs of separation, but the introduction of a further small crystal of the same or some other substance will spontaneously cause the crystallization of the whole, and I feel assured that the granulation of honey can be accelerated by the addition of a very small crystal of the ordinary cane-sugar.

Miscellaneous Items

THE LOS ANGELES CONVENTION will be held next week. Only a few days yet, and there will gather perhaps the largest concourse of bee-keepers ever gotten together on this continent. To be a member of that convention will be a treasured memory by all who can attend. It is the first meeting of the National Association in a Pacific Coast city. California bee-keepers will "lay themselves out" to see that all who are present have the best of entertainment and a good time generally.

We expect to publish in these columns a very full report of the proceedings. But such can not take the place of being present in person. All should go who can at all get away from their homes and business. Aside from the convention, the trip and social meetings and greetings will be a rare treat.

MR. THOS. WM. COWAN is a name well-known throughout the world of beedom. He is not only editor of the only other weekly bee-paper, but is also the author of a book on bees and bee-keeping, that has had an enormous sale in the Old World.

Mr. Cowan is a man most delightful to meet. He is the very essence of affability and courtesy, and his character and ability are of the highest possible. He is a member of many of the famous scientific societies in England, and has won for himself a deservedly conspicuous position in them.

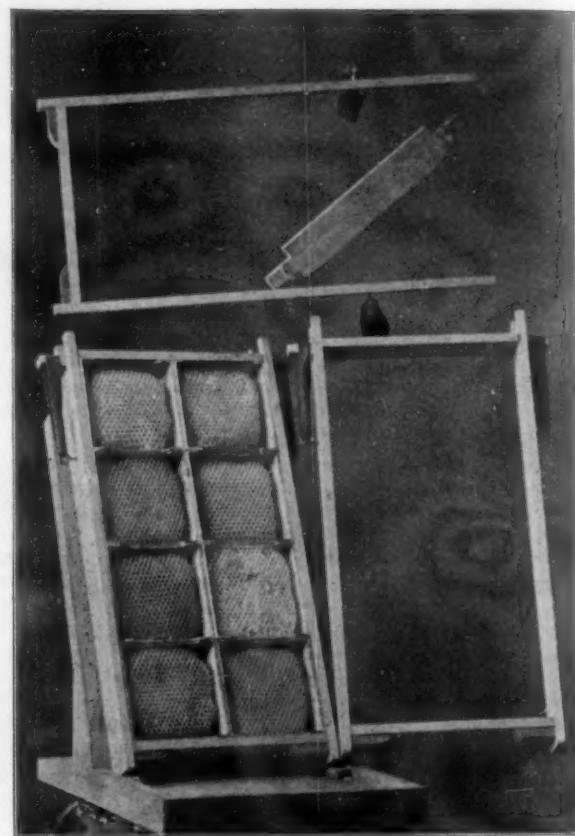
Mr. Cowan has been residing in California for the past few years, but recently returning to England, with his good wife, for a stay of a year or so. It is unfortunate that he can not be at the Los Angeles

convention, for his presence and help would have contributed immensely to the success of that gathering of American bee-keepers.

We are pleased to present to our readers the excellent picture of Mr. Cowan, which is reproduced from his latest photograph.

FRAME FOR EXTRACTING SECTIONS.—The following is from John Trimberger, of Clark Co., Wis.:

I send a photograph of my frame to hold sections for extracting. I use four frames holding 32 sections for one operation. I have used it three or four years now, and find it very expeditious and convenient. The stand is essential. The little honey that drips down stays



PLAN FOR EXTRACTING SECTIONS.

inside the enclosure; the frames remain dry. How the sections are held together can be seen in the picture. To take the sections out, I hold the frame with sections about six inches above the table, then drop the farther end on the table, at the same time pull the shifting end-bar, held by rubbers, toward me, and, presto, out drop the sections.

To put the sections in: After the lower six are in the frame I stand the 7th and 8th against the upper bar, then lift it up and the two last sections drop back in place automatically.

One of the combs in the picture has been mutilated by those inspecting it during zero weather, before the photographer had a snap at it.

JOHN TRIMBERGER.

THAT CAR-LOAD OF BEE-KEEPERS for the Los Angeles convention was assured in good time. As is usually the case, many must decide at the last minute about going. There are so many things to be considered—so many other things to be arranged for leaving—that it is exceedingly difficult for some to go away from home at all, especially when it is necessary to be gone for two weeks or more, as in taking a California trip.

But the company in the special car travelling across the continent will be the best kind of a convention in itself. A car-load of bee-keepers! Who ever heard of such a thing before? And to ride 2000 miles with Dr. Miller, A. I. Root, Hutchinson, and others! That surely will be a memorable event. There should have been 40 or 50 in the company instead of 25 or 30. But to succeed in getting the required number and a few more is something to rejoice over.

You will likely hear more about that car-load of bee-people later on.

Contributed Articles

A Cool Season in California.

BY PROF. A. J. COOK.

WE often find that with the seasons and years we are forced to change some of our old and, as we supposed, well-grounded opinions. I commenced keeping bees in Michigan in 1870, and for more than a dozen years had good honey-production; so I came to the warranted conclusion, as one might suppose, that a fairly good honey crop could be counted on in that goodly State. I felt in those days that the only certain checks on certain or assured success were disastrous wintering, which I soon solved; and "foul brood," which, fortunately, never laid its fatal clutch on my pets of the hive.

Imagine my surprise, then, when three seasons of unprecedented drouths gave us no honey at all. We had to reformulate our opinions, and say with the proper rainfall we were sure of a honey crop. In Michigan, we rarely had a year so cool that it precluded, for the season through, all nectar-secretion.

In California it has been usually, I supposed always, true, that with sufficient rainfall we were sure of a good honey-year. I was told when I came here, nearly ten years ago, that with 15 inches of rainfall we were sure of a good honey-product. This led me to proclaim two valuable characteristics of our section for the bee-keeper: We could be sure of a phenomenal honey-product with a year of ample rainfall; and, second, we could know by early spring whether or not the crop was to be ours, and so could buy, or not buy, our supplies, and could arrange our business as the circumstance of rainfall dictated. If this were surely true, it would be no mean factor in our conclusions as to our standing as the leading honey State in our country, and probably one of the very best in the whole world.

The present season has changed our views, and we find we have to reckon not only with rainfall, but with the cold and damp of spring as well. Last winter gave us a generous rainfall, and we, from all former experience, so far as I knew, had a right to count on a large and sure honey-product. Indeed, for all the years that I have been here, we never have had such abundant and well-timed rains as were ours the past season. As we should expect, the herbage and flowers have been very rich and luxuriant. Yet I doubt if we can secure more than one-third of an average honey crop this year.

The reason is not far to seek. We have had an exceptionally cold and damp season. Many mornings of April and May, and on into June, were so cool that a little fire was agreeable nearly every morning. This cool of the morning held on through the entire day, and while the bees, true to their nature and habits of industry, were out early for the possible nectar, failed to store as we had been led to hope would be the case.

As just stated, I doubt if we will secure more than one-third of a crop in this section of the State. In the north the rainfall was also short, so I doubt if we make any mistake in giving this as the probability for the entire State for the season.

Unfortunately, this removes the ground for sure prophecy in the early season, and we must put a question-mark after the prospects, even in seasons of generous rainfall, for we must also have the genial warmth, for though a damp, cool season may secure ample vegetation, it will not give us the nectar in the flowers.

A PROMISING REGION.

There is being carved out of the very desert of Riverside County, Calif., a very promising region, agriculturally. I speak of the Indio or Coachella valley on the Southern Pacific railroad, about 150 miles east of Los Angeles. This was absolute desert, but, like most of California, the soil is a rich alluvium, and is also very deep and pliable, so that it needs only water to make it wondrously productive. Three years ago it was found that by boring artesian wells a copious supply of the finest water has been secured. These great artesian wells are a marvel to behold. They pour out with no pumping at all. While the country only awoke to man's attention three years ago, there are already

hundreds of these wells, and an area of richest verdure already makes this one of the most attractive agricultural regions to be seen anywhere.

The climate is warm the entire year, and very warm in the summer. Yet it is so dry, atmospherically, that people work, they say, comfortably all day in the hot sunshine, even roofing buildings.

This region is going to be a great alfalfa country. So great is the warmth that even ten crops of alfalfa are grown in a year, and in many cases 2½ tons to the acre are secured. This is sure to become a great alfalfa section. Even at present they are growing alfalfa and feeding hogs at a great profit. There is also a great natural growth of mesquite, which is also of the great Legume family, and, as we should expect, one of the best of honey-plants. I see no reason why this new region should not more than surpass the famous San Joaquin region, and should not equal the very best parts of Arizona. I look to see in the Coachella valley not only one of the best farming sections in the United States, but one of the best regions for honey-production in the world. This valley is so early that early June cantaloupes are sent to Chicago; and early July grapes can be produced in profusion. It will be the great place for early fruits and vegetables.

Los Angeles Co., Calif., July 17.



Examining Apiaries and Curing Them of Foul Brood.

(Special Bulletin by the Ontario Department of Agriculture.)

BY WM. M'EVOW, INSPECTOR OF APIARIES.

BEFORE opening any colony, go from hive to hive and give each colony a little smoke at the entrance of their hive. This will check the bees for a time from coming from other colonies to bother you when you have a hive open and are examining the combs.

When you take out a comb to examine it, turn your back to the sun and hold the comb on a slant, so as to let the sun shine on the lower side and bottom of the cells, and there look for the dark scales left from the foul matter that glued itself fast when drying down; for where you find punctured cappings andropy matter you will find plenty of cells with the dark stain-marks of foul brood on the lower side of the cells. Every bee-keeper should know the stain-mark of foul brood, as it is more important for him to learn to tell it at a glance than to have to use a pin and lift a little of the matter out of a cell by the head of a pin to see if it will stretch three-fourths of an inch. Dead brood of other kinds often have pin-hole cappings, and several cells in the same combs will be found with scales in them; and for this reason every bee-keeper should learn to tell the one class of dead brood from the other, because we often find both classes of dead brood in the same colony with very little foul brood in the same comb, that the bee-keeper did not notice; after testing the other kinds, and not finding any to stretch he felt sure that that colony was not diseased when it was, and in time it would get worse, and get robbed out by the bees from other colonies, and then the disease would be spread all through the apiary.

I have often been called to come at once by parties feeling sure that their colonies had foul brood, and when I got there I sometimes found that it was not. In some cases I found a very sudden loss of the most of the old bees, and nearly all the brood dead and decaying. This was the result of some foolish people spraying fruit-trees while in full bloom, and the bee-keeper, not knowing what caused the sudden loss of nearly all his old bees, and finding so much decaying brood, felt sure that his colonies had foul brood. The only sure way for those people that cannot tell foul brood at a glance, is to put the head of a pin into the matter in the cells and lift it out, and if it stretches they can depend upon it that it is foul brood; but, as I have often said, the most important thing to learn is to know the stain-mark of foul brood, and then it never will make much headway in any apiary or cause much loss, because the bee-keeper would spot the disease at a glance and head it off at once.

Honey, to become diseased, must first be stored in cells where foul-brood matter has been dried down, and it is the bees feeding their larvae from the honey stored in these diseased cells that spreads foul brood. More brood dies of foul brood at the ages of six, seven, eight and nine days than at any other age.

The disease is spread by bees robbing foul-broody colo-

nies, and they carry the disease just in proportion to the amount of diseased honey they convey to their own hives.

Every diseased apiary should be treated according to the exact condition in which it is found, so as not only to drive out the disease, but to make considerable increase in colonies, and end by having every colony in first-class condition. In the honey season, when the bees are gathering freely, is the only safe time to make increase in a diseased apiary, and I make this increase by tiering up two hives full of the best brood with about a quart of bees until the most of the brood is hatched. By that time I will have a very large colony of young bees just in the prime of life, and when these bees are all shaken into a single hive and treated I will have a first-class colony made out of them. In every apiary that I had treated in the honey season I always had increase made by having the best brood tiered up with about a quart of bees, and left until most of the brood was hatched, and then had these bees treated just the same as the old bees that I shook off the brood and treated first.

HOW TO CURE THE APIARIES OF FOUL BROOD.

In the honey season, when the bees are gathering freely, remove the combs in the evening and shake the bees into their own hives; give them frames with comb foundation starters on and let them build for four days, and store the diseased honey in them which they took with them from the old comb. Then, in the evening of the fourth day, take out the new combs and give them comb foundation to work out, and then the cure will be complete. By this method of treatment all the diseased honey is removed from the bees before the full sheet of foundation is worked out. Where you find a large quantity of nice brood with only a few cells of foul brood in the most of your colonies, and have shaken the bees off for treatment, fill two hives full with these combs of brood, and then place one hive of brood on the other, and shade this tiered-up brood from the sun until the most of it is hatched. Then, in the evening, shake these bees into a single hive and then give them frames with comb-foundation starters, and let them build comb for four days. Then, in the evening of the fourth day, take out the new comb and give them comb foundation to work out to complete the cure. After the brood is hatched out of the old combs they must be made into beeswax or burned, and all the new combs made out of the starters during the four days must be burned or made into beeswax, on account of the diseased honey that would be stored in them.

Where the diseased colonies are weak in bees, put the bees of two, three or four together, so as to get a good-sized colony to start the cure with, as it does not pay to spend time fussing with little weak colonies. All the curing or treating of diseased colonies should be done in the evening, so as not to have any robbing done, or cause any of the bees from the diseased colonies to mix and go in with the bees of sound colonies. By doing all the work in the evening it gives the bees a chance to settle down very nicely before morning, and then there is no confusion or trouble. When the bees are not gathering honey, any apiary can be cured of foul brood by removing the diseased combs in the evenings and giving the bees frames with comb-foundation starters. Then, also in the evenings feed the bees plenty of sugar syrup, and they will draw out the foundation and store the diseased honey which they took with them from the old combs. In the fourth evening remove the new combs made out of the starters, and give the bees full sheets of comb foundation, and feed plenty of sugar syrup each evening until every colony is in first-class order every way. Make the syrup out of granulated sugar, and put one pound of water to every two pounds of sugar, and then bring it to a boil.

Where you find the disease in a few good colonies after all honey-gathering is over, do not tinker or fuss with these in any way just then, but carefully leave them alone until an evening in October, and then go to the diseased colonies and take every comb out of these colonies and put six combs of all sealed or capped stores in their place, taken from sound colonies, and on each side of these all-capped combs place a division-board. This will put these colonies in first-class order for winter with little or no bother at all, and the disease crowded clean out at the same time.

But some may say that the disease cannot be driven out so simply in the fall by taking away the diseased combs and giving the bees six combs that are capped all over right down to the bottom of the frames. It can and does cure every time when properly done, and if you stop to think you will see quite plainly that the bees must keep the diseased honey they took out of the old combs until they consume it,

as they cannot find any place in all-capped combs to put it, and that will end the disease at once.

Many bee-keepers will no doubt say that this fall method of treatment will not work in their apiaries at all, because they would not have enough of the all-capped combs to spare from the sound colonies, even if they could find some all-sealed. Very true; but you can very easily secure abundance of all-capped combs by putting Miller feeders on your sound colonies in the evenings in September, and feeding these colonies all the sugar syrup you can get them to take; and then in October each of these fed colonies can spare the two outside combs, which will be nicely capped all over right down to the bottom of the frames, and with these all-capped combs you will be provided with plenty of good stores to carry out my fall method of treatment. I finished the curing of my own apiary in the fall of 1875 by this sealed-comb treatment, when I had foul brood in my own apiary. All of my methods of treatment are of my own working out, and none of them ever fail when properly carried out.

Empty hives that had foul brood in do not need any disinfecting in anyway.

In treating diseased colonies never starve any bees, because it unfits them for business and makes them thin, lean and poor, and is also hard on the queens. I never starved any bees, but always tried to see how fat I could make them while treating them by feeding plenty of sugar syrup when the bees were not gathering honey.

If you have nice, white combs that are clean and dry, and that never had any brood in them, do not destroy one of these, as they are perfectly safe to use on any colony of bees just as they are, and are very valuable to any bee-keeper. I once got a bee-keeper in the State of Vermont to save over 2000 nice, white combs, when he wrote to me for advice, and the saving of this class of combs must have been worth fully \$300 to him. But I have always advised bee-keepers to convert into wax all old combs that ever had one cell of foul brood in them, and the only article that will take all the wax out of the old combs is a good wax-press; and as this will pay for itself many times over its cost, I urge the bee-keepers everywhere to buy one.

NOTE.—Any bee-keeper desiring to know whether his bees are affected with foul brood may send by mail a sample of the diseased comb, enclosed in a pasteboard box, to Wm. McEvoy, Woodburn, Ont., Canada. Please see that the sample is free from honey so that other mail matter will not be injured.



Spring Feeding—Habits of Bees.

BY C. P. DADANT.

I BEG the reader to forgive me for referring to this subject once more, but I cannot leave Mr. A. C. Miller's criticisms unanswered. This will be my last article on this subject, for I realize that long controversies are tiresome to the readers.

Mr. Miller (page 454) accuses me of taking his remarks as a personal attack. I cannot see where he received this impression. I aimed to answer nothing but his arguments and assertions. But it is quite difficult, I will agree, for one to keep his temper when another asserts that the facts you advance are not true.

Mr. Miller takes me to task and criticises my arithmetic and my ignorance of the length of time it takes for a bee to hatch, because I said that the colony that had been self-feeding by slow robbing had almost doubled in a month or so. Mr. Miller, of course, takes the month from the first day of the feeding instead of from the last, as it serves his purpose better, leaving out two weeks of the increase caused by continued feeding. At the end of a month from the first day the increase caused would show but the result of nine days of feeding instead of two weeks. I am so well aware of the necessity of a lapse of time between the laying of the eggs and the harvest, that it is on that point that all my efforts are directed. I want my bees to rear their young at the time when they are likely to be useful for the harvest. If I induce breeding early I do like the poultry-raiser who induces his hens to lay eggs early, when they are valuable. If the harvest begins June 1st and lasts 4 weeks, the bulk of the breeding must be done early in May, and the bees that will hatch from eggs laid June 10th will help consume the honey instead of helping to harvest it. So I insisted, and still insist, on the necessity of encouraging breeding early before the honey crop.

Left to themselves the bees will, of course, breed all through the spring, and will breed more plentifully if they are wealthy than if they are poor, provided they are not so crowded with honey as to have no room for brood; but the breeding will be still more enhanced if the colony is encouraged by feeding when there is nothing in the field. I deprecate the feeding of a rich colony because there is danger of overcrowding their combs with honey, and for no other reason. We have often, in the case of a rich colony, practiced the uncapping of a few cells from time to time, to induce them to feed and consume the honey. That has about the same effect on a rich colony that a little feeding has on the one that is more scantily supplied.

Mr. Miller quotes my own words in Langstroth Revised on that subject. Let me in turn quote him, the master himself, in a previous edition:

"By judicious early feeding a whole apiary may not only be encouraged to breed much faster, but they will be inspired with such vigor and enterprise as to increase their stores with unusual rapidity."

Mr. A. C. Miller will, of course, take objection to this teaching. He has tried feeding in all sorts of ways, and "always at a loss." Ergo, no one can succeed, Langstroth and others to the contrary notwithstanding.

Because I said that we should not feed when feeding would induce bees to fly out in weather cool enough to chill them before their return, or when they found honey out-of-doors, Mr. Miller concludes that when we can feed, we should not, and when we should feed, we can not. This is hardly good faith. There are plenty of times when there is no honey in the fields and yet it is suitable weather for bees to fly. At such times feeding encourages breeding.

When I wrote the previous article, I stated that we were then feeding some 60 colonies. It was about the last of April, and we had been feeding already for some time. We do not practice feeding every year, because it requires a great deal of attention on the part of the apiarist, and I like to look after this myself, and do not always have the time. This year I had two reasons for doing it. The fields were promising an immense crop of clover, and the weather was so changeable, and the early blossoms so scanty, that the bees were very irregular in their breeding. According to Mr. Miller, I fed "at a loss." What of the results? Our apiary foreman is acquainted with a number of apiarists in the neighborhood, and he says: "There is not a single apiary in the immediate vicinity that has such a crop as your home apiary. Some colonies have yielded 400 pounds, and the entire average at this date (about the end of the clover crop) is about 300 pounds per colony."

There are a number of readers of the American Bee Journal in this place, and it is not difficult to verify this statement. Of course, Mr. Miller can say that we would have a still better crop if we had not fed the bees, or that the result is due to other causes. For my part, I am sure that stimulative feeding had much to do with the results.

Mr. Miller tells me that he is ahead of me on some of the habits of the bee; I'll grant this; that the bees never give food on the tongue. Whether this is so or not, it has very little to do with the present discussion. I have seen bees make a "show of tongues"—perhaps they were only kissing. Feeding enhances breeding, because the bees are stirred up by it and because the queen is offered food more plentifully whether it be royal jelly or honey.

Mr. Miller denies flatly the deference of bees for their queen, and asks me to "look again." And would looking again and failing to see it cancel the hundreds of instances where I have seen and shown to visitors, even on the comb held in the hands, the bees making an admiring circle around their queen and getting out of her way at the least move she makes? They realize that she is indispensable, and are ever ready to offer her food, if they have any to offer, which is of course oftener the case when some fresh supply is brought from the field or from the feeder.

Of course, there is no such a thing as a "body-guard liable to instant banishment from neglect of duty," criticised by Cheshire, but this writer himself notices their attentions to her welfare, and backing out of the way not to impede her movements, with the constant offering of food by the neighboring nurses. It is nothing but deference or respect due to the knowledge of her importance in the hive, call it in whatever terms you like. Hancock Co., Ill.

The Premiums offered this week are well worth working for. Look at them.

Bacillus Alvei and Mesentericus.

DR. LAMBOTTE awakened serious fears that the microbe of foul brood was nothing more nor less than one of the commonest bacilli, to be found everywhere, only awaiting sufficiently favorable conditions to start a case of foul brood. It is comforting to know that authorities whose opinions are entitled to respect do not accept as sufficient the proofs that Dr. Lambotte has given. Prof. Harrison, a man of whom our Kanuck friends ought to be proud, seems to have given the matter very careful consideration, and still thinks *B. alvei* distinct from *B. mesentericus*.

Now comes a man whose word always counts, Thos. Wm. Cowan, and after reading what he says, one hardly need lose sleep over Dr. Lambotte's investigations. Mr. Cowan says among other things, in the British Bee Journal:

An examination of Dr. Lambotte's paper will at once convince the unprejudiced mind that there is very little to be alarmed about. It is quite true that Dr. Lambotte says *bacillus alvei* and *bacillus mesentericus vulgaris* are one and the same, and that all previous investigators have made a mistake, but it is not necessarily true because he says so.

That the products of both have aropy and viscous character does not necessarily make them identical, and even if they were they might be produced by different bacilli. Much importance is given to an assumption that the harmless *B. mesentericus* can be, under certain conditions, made to produce disease, and upon this hypothesis—not generally accepted—Dr. Lambotte bases all his conclusions. He is unfortunate in his illustration, for he does not prove that "flacherie" in silkworms is not produced by a specific germ, but only thinks that "if the investigation were again taken up with the present knowledge it would be found that at least one of the forms of this malady would be traced to microbes of the mesentericus family." There is not a shadow of evidence in support of this theory, or that mesentericus has anything to do with the disease, and even if it did it would prove nothing in regard to foul brood. We certainly can not understand Dr. Lambotte trying to maintain his theory in the face of his experiments. He failed entirely to produce foul brood with a cultivation of *B. mesentericus* spread over the brood. Some of the larvae were killed and surrounded with infecting material, but after three days the bees had cleaned out the cells, and there was no further damage. Although this experiment was repeated a number of times, it failed in every instance to produce the disease. We know perfectly well from long experience that such an experiment with *B. alvei* would have produced foul brood in a virulent form in the strongest colony.

Bacillus mesentericus is found almost everywhere, and were it the cause of foul brood we should also hear of this disease wherever bees were kept, but there are many districts where foul brood has not been known to exist, and in every case of an outbreak where investigation has been made, it was found that it had existed there before, or had been by some means introduced.

Without going more deeply into the matter it need only be said that we can not accept Dr. Lambotte's explanation, knowing as we do how rapidly foul brood spreads even when colonies are in the best condition. On the other hand, we also know that when certain means are employed the disease can be got rid of, so that with the present knowledge available we need only follow out the practices usually advocated in order to obtain the best results.

Honey as a Health-Food is the name of a 16-page leaflet (3½x6 inches) which is designed to help increase the demand and sale of honey. The first part is devoted to a consideration of "Honey as Food," written by Dr. C. C. Miller. The last part contains "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by every one who has honey for sale. It is almost certain to make good customers for honey. We know, for we are using it ourselves.

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Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

An Interested Sister.

I am much interested in our "corner" of the American Bee Journal. I am one of the admirers and readers of the Journal, to which I have subscribed for many years. I will be glad to be a "contributor." I have kept bees for about 14 years, with varied luck and experience. I will write more at length soon.

MRS. E. G. BRADFORD.
Newcastle Co., Del.

How One Sister Dresses for Bee-Work.

I am not used to writing for publication, and it has seemed quite a task. I fear you will feel like I do myself, and will dump this in the waste-basket. However, I shall make the effort.

I think the Sisters department fine, and enjoy the contributions, particularly the *dressy* ones.

Lake Winnebago is less than a mile from us, and we have a fine view of it from the porch. There are about 1200 apple, cherry, and plum trees in the orchards, and my bees have an ideal home, as well as myself. I have 36 colonies. I moved 39 colonies 14 miles last December, and put them into the cellar without a flight, or even taking the screens off the top of the hives, and so many of them came out and died on the cellar-floor that I told my family I would be glad to find half a dozen alive in the spring; but they all lived through. I found a great many broken combs, and have had a great deal of work mending them, and clipping queens' wings.

I number my hives with a crayon, and keep a book with a short record of the condition of each colony, and then I have some idea which ones need looking after first. They are all strong, but none of them have swarmed, nor do I want them to do so. Several are, or have been, at work in the supers, and I have taken off a few nicely sealed sections of dandelion honey, but the last two days we have had a cold northeast wind, and to night it feels as if we might have snow.

I have kept a few bees for 20 years. We found our first colony clustered on an oak-tree. For a few years we thought we did well if we got honey enough for our own use. The men did not care for the bees as I thought they ought to, and for the past 15 years I have taken all care of them. I only have to have them carried into and out of the cellar.

I buy my hives in the flat and nail them myself. I find that if I care for 30 colonies I have enough to keep me busy. Last year I had 23 colonies, spring count, and increased to 41. I had nearly 3000 sections of very nice honey, and found two colonies had been robbed, and the worms had eaten the combs. I doubled up some of the weakest. Just as the blossoms were opening I carried the weakest colony, after catching their queen, and put them above the one I wished to unite them with, with a piece of strong paper between in which I had punched a hole large enough for one bee at a time to pass through at night, and in the morning I saw they were carrying out dead ones and having a general war. I used a spray on both hives, using sweetened water with violet perfume, and mixed them all up, putting the frames that had no brood in the upper hive, and I have had no more trouble since then. I have united two more without the loss of a bee, so far as I could see.

I wear a sailor-hat, with black lace stitched fast to the brim, and let it fall loose on my shoulders. If a bee gets in I just raise my veil and let it out. I like an extra hat-pin to pin my veil down in front if I am bending over a hive, and find it handy to pick out a worm if I should happen to see one.

I use a pair of asbestos gloves, such as firemen and engineers use. They do not get scorched on the smoker, and if I get them covered with honey, as I often do when cutting out drone-comb, I take a cloth and wash them off, and they are as soft as ever after they are dry. I clip off the ends of the fingers and thumbs. I like a clean, well-

starched cotton-dress, or, if cool, a shirt-waist and heavy skirt.

When cutting out drone-comb I crush all empty waste comb in my hand into a ball and throw it into a basket or bag with the scrapings and all waste, and after the season is over I take a day and melt it out in the oven. If I have pieces with brood in them I throw them out to the chickens; they are so fond of it, and they will come around the hives waiting for it while I am at work, until the bees get after them, when they soon forget what they were after.

Now, if this finds the way into the waste-basket I shall not be surprised, as I do not think I have given any new ideas, for I think I have seen it all in the American Bee Journal; but I should be delighted to give you a chance to become better acquainted with me, if you should ever come to this vicinity—right here at "The Orchards."

ELIZABETH M. SMITH.

Winnebago Co., Wis., May 31.

Indeed, your communication will not go into the waste-basket. It is extremely interesting, and I hope you will soon favor us with another.

You must have an ideal home. If you are any like me you will thoroughly enjoy the lake, especially fishing in it. I almost envy you that part of it.

I am glad you are sensible enough to use a record-book. How any one can keep bees and get along without one is a mystery to me; but you see we don't all think alike.

I wish you would tell us more about those asbestos gloves. Where can you get them? Do they wear well? Are they proof against stings, etc.? Your bees are not as cross as ours are this summer, or that loose veil would never answer. Too many bees would get under it at once, and when you were attempting to let them out a whole lot more would get in.

Thank you very much for that kind invitation to get better acquainted with you in that ideal home. I should thoroughly enjoy accepting it, but this is such a busy world I am afraid it won't be possible to do so very soon.

Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

When to Take Off Honey.

I have several supers of fine honey all capped over and finished. Would you advise me to take it off and put it in a well-ventilated room, or leave it in the hive? If the latter, how long?

ANSWER.—Take it off as soon as finished. The honey will be as good or better if left on longer, but the comb will become dark.

Brood-Chamber Crowded with Honey.

Upon examining one of my hives I found honey all through the brood-chamber, and, to my surprise, a dead queen. Shall I take about 4 of these frames and put them above in an extracting-super, or leave it to the new queen to which I was going to give 4 frames of full foundation? Just at present she has no place to lay.

MINNESOTA.

ANSWER.—If you intend to extract the honey, you may as well extract it out of the brood-combs; but if you leave it in the brood-chamber the bees will empty out cells as fast as the queen needs them.

Pumpkin Blossoms as Nectar-Yielders—Difference in Bees.

1. Do pumpkin blossoms, nettles, common mint, peppermint, snap-dragon, camomile and love-in-tangle produce honey or pollen for honey-bees?

2. I have five-banded Italians, the queens are large and fine looking, but do not seem to produce extra-good gatherers, as other bee-keepers about a mile distance, but in another valley, have nearly double the yield I have this sea-

son. I bought a late June swarm from one of them. Would you advise breeding from this swarm's queen, or introducing new stock by buying a new queen from some reliable breeder? and would you advise getting a red clover queen?

Although these other bee-men are in a different valley, they claim their bees come through a gap between the mountains into the valley mine are in.

My hives are 10-frame chalk, reduced to 8-frames by division-boards or dummies.

PENNSYLVANIA.

ANSWERS.—1. Pumpkins and all kindred vines do, also the mints; I don't know about the others.

2. It is possible that your neighbor has better bees than yours; it is also just possible that his bees have the advantage of pasturage, even if they are only a mile away. Before deciding fully, you can compare the work of the new swarm with that of your other bees. As the expense would not be great, it might be well at the same time to get a queen of good stock—red clover queens may or may not be better than others—then when you see the work of the progeny of your new queen—that is, of colonies having queens reared from her—you can breed from the best.

The Division-Board and Its Use.

In regard to the use of the division-boards, I would like to be informed. Is the board placed in the center of the brood-chamber or to one side, and for what purpose is it used, anyway?

MINNESOTA.

ANSWER.—What you call a division-board is really a dummy. Its purpose is to fill up the extra space in the hive after all the frames are in. If the hive were just large enough to take in the frames it would be difficult to take out the first frame. The dummy is put in either side, and is easily taken out. When that is out there is plenty of room to take out the first frame. That gives the one and only use of the dummy.

Swarming—Rearing Queens.

1. What is the matter with one of my colonies? It issued as a swarm June 14, that returned to the old colony; June 26, in the forenoon, they issued as a second swarm, which returned, and a third swarm came out in the afternoon, which I hived. Two days later a fourth swarm came out. I sent these back by killing the queen and cutting out all the queen-cells, for the old hive had a queen. They do not have any brood now.

2. How can I rear some queens when there are no queen-cells in any of my colonies?

3. What caused one of my colonies to cast two swarms that returned, and not any that stayed out?

4. Will an 8-frame dove-tailed hive hold enough honey to winter a 12-pound swarm?

MINNESOTA.

ANSWERS.—1. June 14 the old queen issued with a prime swarm. Through defective wings, or for some other cause, she could not go with the swarm, and the bees returned. By June 26 a young queen had emerged, but she was also unable to go with the swarm, and you hived the swarm with a later queen. No brood would be in the hive till their young queen was old enough to lay.

2. Remove the queen from a strong colony and the bees will start queen-cells galore.

3. It may be that the queen could not fly. Then they tried it the second time with the same result. Then because of discouraging weather, or for some other reason, the bees gave up further swarming.

4. Yes, if the frames are full enough.

Moths and Worms Destroying Bees.

How can I drive out the moths and worms that are destroying my bees? They kill the brood, and even get into the supers. How would it do to throw salt or lye into the hives? I fired one hive, but that was hard on the bees.

ILLINOIS.

ANSWER.—There is no way you can drive the bee-moth without driving out the bees; but you can get the bees to do it for you. Keep your colonies strong, and they will look out for the moths, especially if you have Italian blood in your bees. You can, however, give the bees some help by disposing of the large worms in the combs. Take a wire-

nail and pick a hole in one end of a worm's web or gallery, then start at the other end, digging after the worm till it comes out for you to kill.

Colonies Eating Eggs and Destroying Queen-Cells—Extracting from Brood-Combs, Etc.

1. Why do queenless colonies eat or destroy eggs given to them to rear a queen? One of my colonies destroyed a cell I gave them, and are queenless yet.

2. Can honey be extracted from comb having a small patch of brood in it, and not injure the brood?

3. How long can a queen be confined without injuring her future laying?

4. Why does a queen sometimes lay 2 or 3 eggs in one cell?

5. Why do bees swarm after filling the body of the hive and full size 8-frame body on top one-fourth full, as mine did yesterday, July 6?

IDAHO.

ANSWERS.—1. Bees frequently eat or destroy eggs given them or left with them when queenless. I don't know why. They will also destroy queen-cells sometimes for no apparent reason.

2. Yes, if you don't turn rapidly enough to throw out the brood.

3. I don't know; probably a week or two; possibly longer.

4. Sometimes there seems to be something exceptional or wrong with the queen; she lays two or three eggs in a cell when other cells are empty.

5. Generally because crowded for room; in which case it's a sign of a good queen.

Lazy Bees—Comb or Extracted Honey—Introducing Queens.

1. I have a colony of bees which seems lazy; they will not store honey in the super at all, while the others do. Would it be a good plan to requeen?

2. Which would be more profitable for this locality (northern Vermont) comb or extracted honey, both selling at the same price?

3. Which hive is the best to use for extracted honey, the 8 or the 10 frame Langstroth, or the Draper barn?

4. Do you think forced swarming could be successful here?

5. I have a new swarm in a Danz. hive which is too weak to work in a super. If I should have another swarm come out would it be all right to hive them in the same hive with the weak one?

6. What is the most successful way of introducing queens?

VERMONT.

ANSWERS.—1. Probably; although without knowing more about the case it is hard to say.

2. Probably extracted.

3. One of the larger size.

4. Yes.

5. Yes, only you must look out for fighting if the added swarm has a virgin queen.

6. Hard to tell. The plans are legion, every plan heralded as the most successful, and each in turn failing at times. Lately I have been using the water plan with entire success, but whether it would always succeed so well is a question, for I have used it only during a honey-flow. Hold the queen in water till she is nearly, or entirely, drowned, then give her to the queenless colony by laying her on one of the top-bars.

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

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FROM MANY FIELDS

A Great Year for Bees.

This has been a great year for bees here in Kansas. Some of the bees have swarmed again and again, and where they have had the proper care they have stored from 50 to 150 pounds of white clover honey per colony; and we still have the fall flow to come, which, at present, seems very promising.

I have the care of 60 colonies, some of them belonging to my neighbors, and I care for them on shares.

J. M. CHRISTIE.

Coffey Co., Kan., Aug. 3.

Brought Up Among Bees.

If I live to see Aug. 4th, I shall be 67 years old. I was brought up among bees as a child, and was with them until I came to America, 23 years ago.

A friend of mine bought 7 colonies one year ago, and gave them to me to be run on shares. This year I have transferred all but 2, and increased to 24, and all are doing well. I put them in 8-frame hives with half sheets of foundation.

I was taught a good deal about bees and their nature and ways, yet I am glad that I

A Rare Change

FINE QUEENS—either Golden or Honey Queens. Balance season, Untested, 50 cents; Tested, \$1.00.

33A2t J. F. MICHAEL,
R. P. D. 6, WINCHESTER, IND.

 \$300,000,000.00 A YEAR
and you may have part of it if you work for us. Uncle Sam's poultry product pays that sum. Send 10¢ for samples and particulars. We furnish capital to start you in business. Draper Publishing Co., Chicago, Ill.

Sections, Shipping-Gases, Honey-Gans,

And everything necessary for the bee-keeper. Prompt shipping. FINE ITALIAN QUEENS Catalog free.

C. M. SCOTT & CO.
1004 E. Washington St.,
INDIANAPOLIS, IND.



6,000 FARMER AGENTS

are now selling PAGE FENCE to their neighbors. PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

Please mention Bee Journal
when writing advertisers.



A STANDARD-BRED QUEEN-BEE FREE



To Our Regular Paid-in-Advance Subscribers.

We have arranged with several of the best queen-breeders to supply us during 1903 with **The Very Best Untested Italian Queens** that they can possibly rear—well worth \$1.00 each. We want every one of our present regular subscribers to have at least one of these Queens. And we propose to make it easy for you to get one or more of them.

A QUEEN FREE FOR SENDING ONE NEW SUBSCRIBER.

In the first place, you must be a regular subscriber to the American Bee Journal, and your own subscription must be paid at least 3 months in advance. If it is not already paid up, you can send in the necessary amount to make it so when you order one of these fine Queens.

Send us \$1.00 and the name (not your own) and address of **One NEW subscriber** for the American Bee Journal, and we will mail you one of the Queens free as a premium.

Now, go out among your bee-keeping neighbors and friends and invite them to subscribe for the old American Bee Journal. If you want some to show as samples, we will mail you, for the asking, as many copies of the American Bee Journal as you can use.

Should there be no other bee-keepers near you, and you desire one of these fine Queens any way, send us \$1.50 and we will credit your subscription for one year and also mail you a Queen. Of course, it is understood that the amount sent will pay your subscription at least one year in advance of the present time. So, if your subscription is in arrears, be sure to send enough more than the \$1.50 to pay all that is past due also.

We prefer to use all of these Queens as premiums for getting new subscribers. But if any one wishes to purchase them aside from the Bee Journal subscription, the prices are as follows:

One Queen, 75c.; 3 Queens, \$2.10; 6 Queens for \$4.00.

We are filling orders almost by return mail.

Now for the new subscribers that you will send us—and then the Queens that we will send you! Address,

GEORGE W. YORK & CO., 144-146 E. ERIE ST., CHICAGO, ILL.



Please Mention the Bee Journal when writing Advertisers.

can find so much help in the good old American Bee Journal. I can not do without it, and I am not like the poor fellow who wanted it stopped because he had no time to read it. Poor fellow; I pity the man.

I shall want to ask a question or two after a little if it is all right, as I am building a bee-house and want to go into extracting a little next year.

JOHN COATES.

Dunn Co., Wis., July 29.

[Send on your questions any time.—ED.]

Home-Made Grape-Nuts and Postum.

In a late editorial there was an objection made to mixing honey with some cheaper food to increase the sale of honey. I wish to give an account of a little discovery that I lately made.

I was eating a slice of bread well saturated with honey when I was called away. I slipped the plate in the oven, and when I resumed my meal I had "Grape-Nuts." Further experimenting showed me that crusts of bread saturated with honey and dried in the oven gave me "Postum." I was using Postum and Grape-Nuts at the time, but I make my own now at a wonderful saving.

I wish that you would test this, and also discuss it at the coming convention.

Understand, the crusts of bread for Postum, and the inner loaf for Grape-Nuts—a "predigested" food—at a saving of 75 percent. What would it amount to if all the bee-keepers would use it?

S. TROWBRIDGE.

Clay Co., Fla., July 22.

Not Satisfied with Honey-Prices.

My 65 colonies of bees came through in good condition, although an exceptionally cold April was very hard on them. May, however, brought its fine weather, and we have done, I think, very well considering that we keep bees as a "side line."

We have increased, by swarming, to 88 colonies, and taken 3575 finished sections of honey.

I am not satisfied with the prices. For instance, the Kansas City quotations on the same grade of honey that I produce is \$3.50 and \$3.75 per case, while the Birmingham, Ala., price is \$8.00 a case, less freight, and 10 percent commission. When we remember what a city Birmingham is, and what a fine market it is for other produce, we can readily see the importance of asking more for our honey. And to ask more means to get more—I have tried it. We should get together and get 12½ cents at the apiary for our No. 1, and 16¾ cents a pound for our fancy comb honey.

My wife enjoys the Sisters department, and if we did not have so many girl babies to look after she might sometimes write a line for it.

Register us as being in favor of black bees for comb honey; and the American Bee Journal for our guide.

R. V. Goss.

Walker Co., Ala., Aug. 3.

Fine White Clover Flow.

The white clover honey-flow was fine, although a good deal of rain and bad weather have been sandwiched in. Had we gotten through the winter with strong colonies, or if we had even had fair weather to build up

Thousands of Hives - Millions of Sections

Ready for Prompt Shipment.

We are not selling goods on NAME ONLY, but on their quality. In addition to the many car-loads we are shipping to all parts of the United States, we have just made one shipment of five car-loads to England.

G. B. LEWIS CO., Watertown, Wisconsin, U. S. A.

Natick House, LOS ANGELES.

Cor. First and Main Sts.,
HART BROS., Proprietors.

"The Popular Hotel," remodeled; 75 additional rooms, all newly furnished. Everything strictly first-class. Elevator. American plan, \$1.25 to \$3.00; latter includes suites with private baths. European plan, 50 cents up.

HEADQUARTERS of the NATIONAL BEE-KEEPERS' ASSOCIATION during the Convention, Aug. 18, 19 and 20.

Please mention Bee Journal when writing.

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

	5lb	10lb	25lb	50lb
Sweet Clover (white)	\$.75	\$1.40	\$3.25	\$6.00
Sweet Clover (yellow)90	1.70	4.00	7.50
Alaika Clover	1.00	1.80	4.25	8.00
White Clover	1.50	2.80	6.50	12.50
Aifolia Clover	1.00	1.80	4.25	8.00

Prices subject to market changes.

Single pound 5 cents more than the 5-pound rate, and 10 cents extra for postage and sack.

Add 25 cents to your order, for cartage, if wanted by freight, or 10 cents per pound if wanted by mail.

GEORGE W. YORK & CO.
144 & 146 Erie Street, CHICAGO, ILL.

Italian Queens, Bees and Nuclei.

We have a strain of bees bred specially for honey-gathering and longevity, at the following prices:

One Untested Queen	\$.60
One Tested Queen30
One Select Tested Queen	1.00
One Breeder Queen	1.50
One - Comb Nucleus (no Queen)	1.00

These prices are for the remainder of the season.

Queens sent by return mail. Safe arrival guaranteed. For price on Doz. lots send for Catalog. J. L. STRONG,

16Aft 204 E. Logan St., CLARINDA, IOWA.
Please mention Bee Journal when writing.



BEE-KEEPERS' SPECIAL TOURIST CARS VIA SANTA FE ROUTE TO LOS ANGELES

LEAVE CHICAGO

First Special Car via
Grand Canyon of Arizona,

Wednesday, Aug. 12th, 10 p.m.

Arrive Grand Canyon
Saturday, Aug. 15, 5:30 p.m.

(Spend Sunday at Canyon.)

Leave Canyon Monday, Aug. 17, 9 a.m.

Arrive Los Angeles Tuesday, 18, 8 a.m.

Second
Special Car

Friday,
August 14th,

10 p.m.

Arrive Los Angeles
Tuesday, August 18th,
8 a.m.

Round Trip—Los Angeles, San Francisco, \$50.00.

August 1st to 14th,
Good until October 15th,
A Choice of Routes
Returning....

Sleeper—Double Berth, \$6.00.

Additional for Grand Canyon Side-Trip, \$6.50. Sleeper, \$2.00.

J. M. CONNELL,
Gen. Agt.

SANTA FE

109 ADAMS ST.
CHICAGO.

Marshfield Manufacturing Company.

Our specialty is making SECTIONS, and they are the best in the market. Wisconsin BASSWOOD is the right kind for them. We have a full line of BEE-SUPPLIES. Write for free illustrated catalog and price-list.

Marshfield Manufacturing Company, Marshfield, Wis.

Please mention Bee Journal when writing.

ADEL QUEENS.

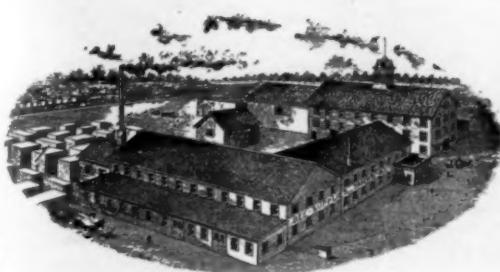
One Queen.....	\$1.00
Three Queens.....	2.75
Six Queens.....	5.00
Twelve Queens.....	9.00

Send for 25-page Catalog.

Have reduced price of Improved Queen-Rearing to 50 cents per copy. Book sent free to all who purchase three or more Queens.

30Atf
Please mention Bee Journal when writing.

HENRY ALLEY, Wenham, Mass.



KRETCHMER MFG. CO.,
Red Oak, Iowa.

13D13t

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Everything FOR BEES...

Catalog with hundreds of NEW illustrations FREE to bee keepers. Write for it now

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AGENCIES:

Foster Lumber Co., Lamar, Colo.
Trester Supply Co., Lincoln, Nebraska.
Shugart & Ouren, Council Bluffs, Iowa.
J. W. Bitzenbender, Knoxville, Iowa.

from spring, we would have had a "bumper" crop. The quality is excellent.

I have been kept constantly "at the post" early and late. I feared overstocking my pasture here at home, and took 25 colonies to another yard 6 miles away, but it would have been better to have kept them here until after the white clover flow weakened, which is about now. I have 110 colonies here, and will move some of them out to other yards to fill up for winter stores, in place of feeding them sugar, as I did last fall. T. W. HALL.

Sioux Co., Iowa, Aug. 1.

Exceptionally Good Season.

Last season I started with 5 colonies in box-hives, 2 of which I transferred to frame-hives before they swarmed. The 3 not transferred early in the spring gave me 8 good swarms, and the last one on June 10, 20 days after each box-hive colony cast the first swarm. I transferred them to standard or Simplicity hives, and now have 13 colonies, all in good condition. Some of the prime swarms are now working in the third super, and may need more room in a week or two, if the honey-flow continues. It has been exceptionally good this season.

H. A. SCHOPPENHORST.

Warren Co., Mo., July 27.

Long Tongues Valuable South as well as North.

How Moore's strain of Italians roll in the honey down in Texas.

HUTTO, TEX., Nov. 19, 1902.

J. P. MOORE.—Dear Sir:—I wish to write you in regard to queens purchased of you. I could have written sooner, but I wanted to test them thoroughly and see if they had those remarkable qualities of a three-banded Italian bee. I must confess to you I am more surprised every day as I watch them. They simply "roll the honey in." It seems that they get honey where others are idle or trying to rob; and for gentleness of handling, I have never seen the like. Friend E. R. Root was right when he said your bees have the longest tongues; for they get honey where others fail. I will express my thanks for such queens. I am more than pleased. I will stock my out-apiaries next spring with your queens.

Yours truly, HENRY SCHMIDT.

The above is pretty strong evidence that red clover is not the only plant which requires long-tongued bees to secure the greatest quantity of nectar.

Daughters of my 23-100 breeder, the prizewinner, and other choice breeders: Untested, 75 cents each; six, \$4.00; dozen, \$7.50. Select untested, \$1.00 each; six, \$5.00; dozen, \$9.00. Safe arrival and satisfaction guaranteed. Circular free. I am filling all orders by return mail, and shall probably be able to do so till the close of the season.

J. P. Moore, L. Box 1, Morgan, Ky.
31Atf Pendleton Co.

Please mention Bee Journal when writing

QUEENS.

BROTHER BEE-KEEPERS:

I thank you for the many orders I received this year. I have 700 Nuclei, and can send 3 or 5 banded Queens by return mail. During August, for 60 cents each; 6 for \$3.50; 12 for \$6.90. Tested—\$1.00 each; Breeders, \$3.00 each. My bees are of the very best strains. You cannot get any better at any price. I make a specialty of queen-rearing.

This ad will not appear again. Remit by Postal Money Order.

DANIEL WURTH,
Karnes City, Karnes Co., Texas.

WARM YOUR HOUSE

at low cost by using the LEADER Steel Furnace, saves coal, time, trouble. Send for free booklet No. 17
Heas Warming and Ventilating Co., Chicago, Ill.

Please mention Bee Journal when writing

\$5 TO START YOU IN BUSINESS

We will present you with the first \$5 you take in to start you in a good paying business. Send 10 cents for full line of samples and directions how to begin.

DRAPER PUBLISHING CO., Chicago, Ills.

Please mention Bee Journal
when writing advertisers.

REMARKABLE

The Universal Satisfaction our
QUEENS do give...

STERLING, GA., June 29, 1903.

I was showing my father yesterday how my bees, which I bought from you, were out working everything in my apiary. Send me 4 Buckeye Red Clover and 2 Muth Strain Golden Italians. I will order more after next extracting.

THOS. H. KINCADE.

Buckeye Strain Red Clover Queens. They roll in honey, while the ordinary starve. Muth Strain Golden Italians—NONE SUPERIOR. Carniolans—NONE BETTER.

Untested, 75c each; 6 for.....	\$ 4.00	Tested, \$1.50 each; 6 for.....	\$ 7.25
Select Untested, \$1.00 each; 6 for.....	5.00	Select Tested, \$2.50 each; 6 for.....	12.00
Best money can buy, \$3.50 each.			

Send for Catalog of BEE-SUPPLIES; complete line at manufacturer's prices.

The Fred W. Muth Co.,
Front and Walnut, - CINCINNATI, OHIO.

Best Season in 10 Years.

This is the best honey season we have had in 10 years. My best colonies have given me 200 pounds each of extracted honey up to this date. I have tried for comb honey, averaging also 100 pounds each.

Although northern Michigan is better adapted to the production of extracted than comb honey, I have mastered this problem with the aid of more experienced apiarists.

GEORGE J. MOLONEY.

Cheboygan Co., Mich., July 22.

A Theory on Queen-Rearing.

I have been much interested in the discussions in the American Bee Journal on queen-rearing. I have made a special study on that line for several years, and have had some experience in rearing queens artificially. Like Mr. Geo. B. Whitcomb, on page 475, I have a theory. Although he was loaded with smokeless powder, I think he missed the mark entirely. Now, I will not use any powder, but will just hand in my theory, and the readers of the "Old Reliable" can compare it with Mr. Whitcomb's.

We will suppose a colony of average strength; take them from their winter quarters the first of April; the bees begin gathering pollen, they have plenty of stores, and the queen quickly fills the comb within the cluster with brood. Now about this time the brood batches. The weather being warmer, the bees gathering from fruit-bloom, the queen is soon laying at her full capacity, and soon has all the empty comb occupied, and now she must stop laying so rapidly there will not be so many larvae for the nurse-bees to feed. There is an over-supply of royal jelly, and the young bees are hatching by the thousands, with practically nothing to do, as there are several nurses for every larva. Now is the time, if the weather is favorable, that they will make preparation to swarm, and

will rear good queens either naturally or artificially, for the reason that they have an over-supply of nurse-bees and royal food. It makes no difference about the size of the hive, so that it is full of bees in the above condition. If the weather is warm, and a good flow of honey, you will get good queens.

Now about the laying worker: I think any time when a colony has an over-supply of nurse-bees, that they sometimes feed some of the larva more royal food, or feed for a longer time, than they should to develop a worker; and if the colony becomes hopelessly queenless one or more of these over-fed bees will try to perpetuate the colony, setting herself up as a queen, and laying eggs. I do not believe that there is any difference in the eggs of a queen, they are all fully developed eggs.

Now, we will suppose that we have a colony with the above conditions reversed, that is, the number of nurse-bees are too few to properly feed the young larva, and some of them are stinted or weaned too soon. Now, what will be the consequences? I have a theory (but I am not very sure about it yet), that when those underfed bees hatch they will have paralysis. C. P. MCKINNON.

Marshall Co., Iowa, Aug. 4.

Single Blessedness Not Encouraged Longer.

With the help of my 13-year-old son I am looking after 235 colonies of bees. I do all of my own house-work. Strange for a man to talk so, isn't it? Well, I have done so for 11 years, and never until this summer have I so badly felt the need of a "queen" in the kitchen. Just imagine a man baking light bread, and it almost ready to go in the oven, and 115 swarms of bees out at one and the same time. Well, as a bee-keeper, I won't encourage single blessedness any longer.

This (Delta) county will have only a medium crop of honey, but it is of excellent quality. It has been the worst season for swarming in years, and it seemed almost out of the question to stop it.

Since reading the Bee Journal, this summer, I have come to the conclusion that a man can not be up-to-date who does not take one or more good bee-papers.

There are some questions I want to discuss with my brother bee-keepers when I get time in the near future, as it better prepares us for successful work. W. S. BEVERLIN.

Delta Co., Colo., July 23.

A Report from Nebraska.

In 1902 I increased from 9 to 22 colonies, because I did not know how to prevent it. After reading the "Old Reliable" I wintered the 22 colonies successfully, coming out last spring all strong excepting 2 colonies that were weak and queenless. I united them with 2 other colonies, leaving 20 colonies for 1903. I have not had a swarm, and hope to finish the season without increase.

I have kept bees eight years, and this is the first year I have studied their needs. I just begin to see what could have been stored by a few colonies well cared for had I taken a bee-paper and read it.

No farm should be without a few colonies of bees, even 2 or 3. Keep them contented with plenty of ventilation, some shade and foun-

Tennessee Queens.



Daughters of Select Imported Italian, Select long-tongued (Moore's), and Select, Straight 5-band Queens. Bred 3½ miles apart, and mated to select drones. No bees owned within 2½ miles; none impure within 3, and but few within 5 miles. No disease. 30 years' experience. WARRANTED QUEENS, 60 cents each; TESTED, \$1.25 each. Discount on large orders. Contracts with dealers a specialty. Discount after July 1st

Send for circular.

JOHN M. DAVIS,
SPRING HILL, TENN.

9A26t

SHEEP MONEY IS GOOD MONEY
if you work for us. We will start you in business and furnish the capital. Work light and easy. Send 10 cents for full line of samples and particulars.
DRAPER PUBLISHING CO., Chicago, Ills.

Hives, Sections, Foundation,
etc. We can save you money. Send list of goods wanted and let us quote you prices. ROOT'S GOODS ONLY. Send for Catalog.

M. H. HUNT & SON, Bell Branch, Mich.

For Sale Will sell from 10 to 50 Colonies of Bees in Dovetailed Hives. Bees and Hives in good condition.
33A1t J. C. REAGOR, Shelbyville, Tenn.

BINGHAM'S PATENT Smokers
25 years the best. Send for Circular. T. F. BINGHAM, Farwell, Mich.

Business Queens,

Bred from best Italian honey-gathering stock, and reared in FULL COLONIES by best known methods. Guaranteed to be good Queens and free from disease. Untested, 75c each; 6, \$4.00. Tested, \$1.25 each.

CHAS. B. ALLEN,
Central Square, Oswego Co., N. Y.

FREE FOR A MONTH

If you are interested in Sheep in any way you cannot afford to be without the best Sheep Paper published in the United States.

Wool Markets and Sheep

has a hobby which is the sheep-breeder and his industry, first, foremost and all the time. Are you interested? Write to-day.

WOOL MARKETS AND SHEEP. CHICAGO, ILL.

Dittmer's Foundation!

Retail and Wholesale.

the thinnest base. It is tough and clear as crystal, and gives more sheets to the pound than any other make.

Working wax into Foundation for Cash a Specialty. Beeswax always wanted at highest price.

Catalog giving FULL LINE OF SUPPLIES with prices and samples, FREE on application. E. GRAINGER & CO., Toronto, Ont., Sole Agents for Canada.

GUS. DITTMER, Augusta, Wis.

Queens Now Ready to Supply by Return Mail

Stock which cannot be excelled. Each variety bred in separate apiaries, from selected mothers; have proven their qualities as great honey-gatherers.

Golden Italians Have no superior, and few equals. Untested, 75 cents; 6 for \$4.00.

Red Clover Queens, Carniolans —They are so highly recommended, being more gentle than all others. Untested, \$1.00.

ROOT'S GOODS AT ROOT'S FACTORY PRICES.

C. H. W. WEBER, 2146-2148 Central Avenue, CINCINNATI, OHIO.

(Successor to Chas. F. Muth and A. Muth.)

sweet for the table.

Do not neglect to subscribe for some good bee-paper, then take time to read it, advertisements and all. The successful farmer reads one or more good farm papers. Why not the bee-keeper?

The bees have had one continual picnic since white clover commenced to bloom, and the second crop of alfalfa was left standing until the winter wheat and early oats were in the shock, much to the joy of the busy bee.

The honey crop in Platte county for 1903 will be a fair one. Extracted slow, and comb honey in quick demand.

Let us hear from more Nebraska bee-keepers.

S. P. DRINKIN.

Cause of Loss of Queens.

After reading the item on "Bees Carrying Queens Out," I think I can give the correct cause. I think they killed the queens.

Last spring I lost several queens, and will give the cause of their loss. Out of a house-apriary containing 19 Danz. hives I lost 5 colonies and 6 queens, 4 of the colonies dwindling after their queens were lost.

During the early rains the packing got wet, and I removed it. I then discovered that cleats nailed on the inside of the hive kept the covers from fitting on tightly, and the chaff cushions on top of the brood-nest got in a bad condition. I concluded to remove the cleats, and in doing so jarred the hives, causing some of the colonies to ball their queens. The cover of the hive was heavy, and in removing it and placing it back on caused considerable jarring.

A bee-keeping friend told me of an experiment he once tried. Going to a strong colony he struck the hive one blow with a hammer. Upon examining the colony a little later he found the queen had been killed.

Be very careful not to jar the hives during early spring, especially in removing them from the cellar, or in case it is necessary to handle the frames. With fixed frames special care must be exercised or else you will lose more or less of your queens.

A. G. YOUNG.

Cattaraugus Co., N. Y., July 30.

This foundation is made by a process that produces the superior of any. It is the cleanest and purest. It has the brightest color and sweetest odor. It is the most transparent, because it has the thinnest base. It is tough and clear as crystal, and gives more sheets to the pound than any other make.

Working wax into Foundation for Cash a Specialty. Beeswax always wanted at highest price.

Catalog giving FULL LINE OF SUPPLIES with prices and samples, FREE on application. E. GRAINGER & CO., Toronto, Ont., Sole Agents for Canada.

BEE-BOOKS

SENT POSTPAID BY

GEORGE W. YORK & CO.,

144 & 146 E. Erie St., - CHICAGO, ILL

Forty Years Among the Bees, by Dr. C. C. Miller.—This book contains 328 pages, is bound in handsome cloth, with gold letters, and design; it is printed on best book-paper, and illustrated with 112 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard. The first few pages are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. Seventeen years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees. Price, \$1.00.

Bee-Keeper's Guide, or Manual of the Apiary, by Prof. A. J. Cook, of Pomona College, California. This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 544 pages. 295 illustrations. Bound in cloth. 19th thousand. Price, \$1.20.

Langstroth on the Honey-Bee, revised by Dadant.—This classic in bee-culture has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No aparian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages, bound in cloth. Price, \$1.20.

A B C of Bee-Culture, by A. I. & E. R. Root.—A cyclopedia of over 500 pages, describing everything pertaining to the care of the honey-bees. Contains about 400 engravings. It was written especially for beginners. Bound in cloth. Price, \$1.20.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of queen-bees are reared in perfect accord with Nature's way. Bound in cloth and illustrated. Price, \$1.00; in leatherette binding, 60 cents.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—It is nicely illustrated, contains 160 pages. Price, in cloth, 75 cents; in paper, 50 cents.

Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is a practical and entertaining writer. You should read his book; 90 pages; bound in paper, and illustrated. Price, 50 cents.

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called "Bees and Honey." 100-page pamphlet. Price, 25 cents.

Apiary Register, by Thomas G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, \$1.00.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cents.

Winter Problem in Bee-Keeping, by G. R. Pierce.—Result of 25 years' experience. Price, 30 cents.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price, 10 cents.

Close Saturdays at 1 p.m.—Our customers and friends will kindly remember that beginning with July 1, for three months we will close our office and bee-supply store at 1 p.m. on Saturdays. This is our usual custom. Nearly all other firms here begin the Saturday afternoon closing with May 1st, but we keep open two months later on account of the local bee-keepers who find it more convenient to call Saturday afternoons for bee-supplies.

National Convention Notice.

The 34th Annual Convention of the National Bee-Keepers' Association will be held in Los Angeles, Calif., on August 18, 19, and 20, 1903, in Blanchard's Hall, at 235 S. Broadway. The headquarters of the Association during the convention will be at the Natick House, corner of First and Main Streets.

It is expected that this will be the largest and best convention ever held by the bee-keepers of America. Every one interested in the production of honey should be present, if at all possible. Besides the question-box, which will be one of the special features of the program, the following subjects will be discussed in papers by the prominent bee-keepers mentioned. Afterward a free and full discussion will be had by all in attendance who wish to participate. The subjects and men to introduce them are as follows:

"Honey Exchanges and Co-operation Among Bee-Keepers" by Prof. A. J. Cook, Claremont, Calif.

"How to Make Money Producing Extracted Honey," by J. F. McIntyre, Sespe, Calif. Response by E. S. Lovese, Salt Lake City, Utah.

"The Production and Sale of Chunk Honey," by Homer H. Hyde, Floresville, Texas. Response by C. P. Dadant, Hamilton, Ill.

"The Eradication of Foul Brood," by N. E. France, Platteville, Wis.

"Reminiscences of Bee-Keeping and Bee-Keepers in the Early Days," by A. I. Root.

There will be reports by the officers, which include Pres. Hutchinson, General Manager France, and Secretary York.

The California bee-keepers are planning to give all in attendance one of the grandest receptions imaginable on the first evening, Tuesday, Aug. 18. No one will want to miss this feature of the convention.

It is an opportunity of a lifetime to take the trip to California, as all convention members can avail themselves of the low railroad rates, as it comes at the time of the Grand Army meeting in San Francisco, and the same rates apply to Los Angeles.

For further information or particulars that may be desired, address the Secretary, 144 E. Erie St., Chicago, Ill.

GEORGE W. YORK, Sec.
W. Z. HUTCHINSON, Pres.

BEE-SUPPLIES!
ROOT'S GOODS AT ROOT'S PRICES!
POUDER'S HONEY-JARS. Prompt service. Low Freight Rates.
NEW CATALOG FREE.

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HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, Aug. 7.—Consignments of the new crop are coming to commission houses that have not had honey for years past, and as there is not any consumptive demand they are finding difficulty in disposing of it. Under such conditions it is hardly possible to give accurate prices, as some merchants ask 10 cents for honey that others hold at 15 cents. The prices given in our last quotations are asked, but feeling is unsettled. Beeswax steady at 30c.

KANSAS CITY, July 28.—Some new comb honey in market, but on account of hot weather the demand is not heavy, but will be getting better every day. Fancy white comb, 24 sections, per case, \$3.50; No. 1, white and amber, 24 sections, per case, \$3.25; No. 2, white and amber, 24 sections, per case, \$3.00. Extracted, white, per pound, 6@6½c; amber, 5½c. Beeswax, good demand, 25@30c. C. C. CLEMONS & CO.

ALBANY, N. Y., July 18.—We are receiving some shipments of new comb honey, mostly from the South; the demand light as yet; we are holding at 15@16c. Extracted slow at 6@7c. The crop of honey in this vicinity is very light, and we shall have to depend upon other sections more than ever for our supply of honey. Beeswax, 30@32c. H. R. WRIGHT.

CINCINNATI, Aug. 6.—The supply about equals the demand for extracted honey. We are selling amber extracted in barrels from 5½@6½c, according to quality. White clover, barrels and cans, 7@8c, respectively. Comb honey, fancy, in no-drip shipping cases, 16@16½c cents. Beeswax, 30c. THE FRED W. MUTH CO.

NEW YORK, July 8.—Some new crop comb honey now arriving from Florida and the South, and fancy stock is in fair demand at 14c per pound, and 12@13c for No. 1, with no demand whatever for dark grades.

The market on extracted honey is in a very unsettled condition, with prices ranging from 5@5½c for light amber, 5½@6½c for white, and the common Southern at from 50@55c per gallon. Beeswax steady at from 30@31c.

HILDRETH & SECKLEN.

CINCINNATI, July 20.—The demand for honey continues slow. New extracted and comb begins to be offered largely. Prices show a downward tendency. Extracted sells at the following prices: Amber in barrels, 5@5½c; alfalfa, 6½c; white clover, 7@7½c. Comb honey, fancy water-white, will bring 14@15c; no demand for lower grades. Beeswax, 27@30c. C. H. W. WEBER.

SAN FRANCISCO, July 22.—White comb honey, 11½@13½c; amber, 8@10c. Extracted, white, 5½@5c; light amber, 4½@5c; amber, 4½@4½c; dark, 3½@4½c. Beeswax, good to choice, light, 27½@29c; dark, 25@26c.

This season's crop is not only unusually late, but is proving much lighter than was generally expected. While the market is unfavorable to buyers, the demand at extreme current rates is not brisk and is mainly on local account.

WANTED! Extracted Honey.

Send sample and best price delivered here; also Fancy Comb wanted in no-drip cases.

THE FRED W. MUTH CO.

32Atf Front and Walnut, CINCINNATI, OHIO.

WANTED—Comb Honey in quantity lots. We are perhaps the only dealers in this article owning as much as 150,000 pounds at one time. Please state quantity, quality and price asked for your offerings. THOS. C. STANLEY & SON, 24Atf MANZANOLA, COLO., or FAIRFIELD, ILL.

WANTED—Extracted Honey.

Mail sample and state lowest price delivered Cincinnati. Will buy FANCY WHITE COMB HONEY, any quantity, but must be put up in no-drip shipping-cases.

C. H. W. WEBER,

2146-48 Central Ave., CINCINNATI, OHIO.

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WANTED!

TO BUY—White Clover Comb and Extracted HONEY—also Beeswax. Spot cash. Address at once, C. M. SCOTT & CO., 33Atf 1004 E. WASH. St., INDIANAPOLIS, IND.

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are no better than those we make, and the chances are that they are not so good. If you buy of us **you will not be disappointed.** **We are undersold by no one.** Send for new catalog and price-list and free copy of THE AMERICAN BEE-KEEPER; in its thirteenth year; 50 cents a year; especially for beginners.

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W. M. GERRISH, Epping, N.H., carries a full line of our goods at catalog prices. Order of him and save the freight.

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The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. It is used by many beekeepers. Full printed directions sent with each one. We mail it for 25 cents; or will send it **FREE** as a premium for sending us **One New subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device.** Address,

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Such investments are not speculative. The South is not a new country. Market and shipping facilities are adequate and first-class. The climate is mild and favorable. Notwithstanding these and other advantages, Southern lands are selling for prices far below their real value, and at present prices net large returns on the investment. For a free set of circulars, Nos. 1 to 10, inclusive, concerning the possibilities of lands in Kentucky, West Tennessee, Mississippi and Louisiana, on and near the Illinois Central Railroad, for homeseekers and investors, address the undersigned.

**A. H. HANSON, G. P. A., Chicago.
26A12t Please mention the Bee Journal.**

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To say to the readers of the BEE JOURNAL that

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is now up with orders, so he can send Queens from his choice honey-gathering stock, by return mail, at the following prices:

1 Untested Queen	\$1.00
3 Untested Queens... .	2.25
1 Tested Queen	1.25
3 Tested Queens.... .	3.00
1 select tested queen	1.50
3 " " Queens 4.00	
Extra selected breeding, the very best..	5.00

Circular free, giving particulars regarding each class of Queens, conditions, etc. Address,

**G. M. DOOLITTLE,
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We guarantee Satisfaction. What more can anybody do? BEAUTY, NO LOSS. PURITY, FIRMNESS, NO SAGGING, WEED-PROCESS SHEETING.

Why does it sell so well? Because it has always given better satisfaction than any other. Because in 25 years there have not been any complaints, but thousands of compliments.

Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

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Very fine pure-bred BARRED PLYMOUTH ROCK Chickens and Eggs for sale at very low prices.

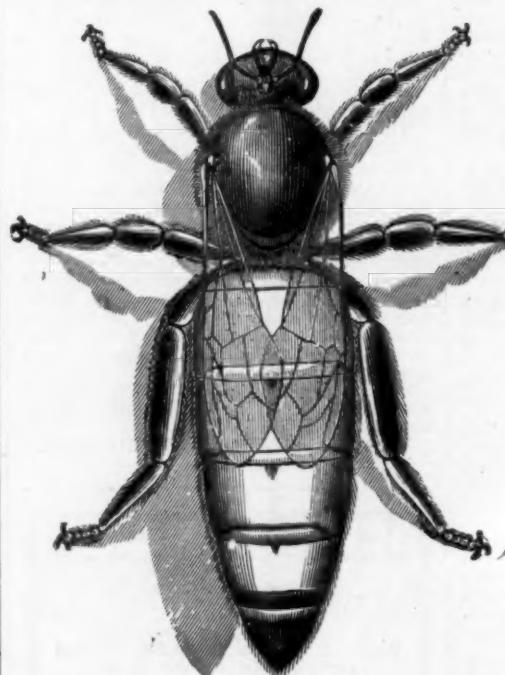
Langstroth on the Honey-Bee—Revised,
The classic in Bee-Culture—Price, \$1.20, by mail.

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RED CLOVER HONEY-QUEENS.



SPRING BLUFF, WIS., July 18, 1903.
THE A. I. ROOT CO., Medina, Ohio.

Dear Sirs—I thought I would write you a few lines in regard to the Red Clover Queen I got from you. They haven't swarmed this summer, but I have taken 48 sections from them and there are 24 more all ready to come off.

Just think, 72 nice sections of as nice honey as ever was made, and only July 18th. It seems as though they will surely fill 48 more.

I don't know whether their tongues are any longer than any of the others, or whether they gathered it from Red Clover, but surely such bees are worth money.

I use the 8-frame Jumbo frame.

C. E. KELLOGG.

C. E. KELLOGG, Spring Bluff, Wis.

Dear Sir—We have yours of July 18th and would be glad to have you advise us by return mail with reference to the capping of the honey. Some parties say the capping from these bees is not white, and we would be glad to have you advise us how your honey is in this respect, and oblige. Yours truly,

THE A. I. ROOT CO.

SPRING BLUFF, WIS., July 31, 1903.

THE A. I. ROOT CO., Medina, Ohio.

Dear Sirs—Yours of July 24th hand to-day. In regard to your question in reference to the capping of the honey from these bees I will say that it is simply perfect, beautiful snow-white and even box perfect. 96 one-pound sections now. I am quite sure they will fill two more supers which will bring the number up to 144. I would like very much to have you see a few of those sections, and I will be glad to send you a few.

Now, I haven't told you ALL their good qualities yet. I am sure they are by far the most gentle bees to handle I have. I could take off the sections without smoke or veil without getting stung.

There are a few traits about them that they will.

I will write you again in a few weeks and let you know if they fill the 144 sections, which I am sure.

Respectfully,

C. E. KELLOGG.

AGAIN READY FOR PROMPT DELIVERY.

We were snowed under with orders for a few weeks, but here we are again with good Queens and prompt service.

Red Clover and Honey Queens.

	Each.	Six.		
Untested	\$1.00	\$ 5.70	Breeding	\$ 5.00
Tested	2.00	11.40	Select Breeding	7.50
Select Tested	3.00	17.10	Extra Select Breeding	10.00

With any of the last three we include one frame of bees and brood to insure safe arrival, for which we make no charge. These must be sent by express. Queen circular free.

THE A. I. ROOT CO., Medina, Ohio.